DPM 5249

HAZARD RATING:
4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT
* = CHRONIC HEALTH HAZARD - SEE SECTION V

Fire 1 | React 1 | Health 0 | Special 0

# MATERIAL SAFETY DATA SHEET

REV'D DEC 21 1987

## I. PRODUCT IDENTIFICATION

TRADE NAME (as labeled): Zip Aerosol D-5330 Moly Oil Spray

CHEMICAL NAMES, COMMON NAMES: MIXTURE

MANUFACTURER'S NAME: Mitann, Inc.

DATE PREPARED: June 2, 1986

ADDRESS: 21320 Deering Court
Canoga Park CA 91304

EMERGENCY PHONE: (818) 883-4700

BUSINESS PHONE: (818) 883-4700

## II. HAZARDOUS INGREDIENTS

| CHEMICAL NAMES | CAS NUMBERS | EXPOSURE LIMITS IN AIR | | |
|---|---|---|---|---|
| | | ACGIH (TLV) | OSHA (PEL) | OTHER |
| Methane, Dichlorodifluoro | 75-71-8 | 1000 ppm | 1000 ppm | |
| Methane, trichlorofluoro | 75-69-4 | 1000 ppm | 1000 ppm | |
| Polyalkylene Glycol | | NOT ESTABLISHED. | | |
| Molybdenum Disulfide | | | 15.00 Mppcf | * |

*The solids in this product are blended into a fluid and the product is not considered hazardous. As a dry powder, there is a nuisance dust TLV as listed above.

## III. PHYSICAL PROPERTIES

VAPOR DENSITY (air=1): 4.9

SPECIFIC GRAVITY: 0.953-0.977

SOLUBILITY IN WATER: n/a

VAPOR PRESSURE, ~~mmHg @ 20°C~~: 80 psig @ 77°F

EVAPORATION RATE (butyl acetate = 1) 0.1

APPEARANCE AND ODOR: Clear slight ethereal odor

MELTING POINT OR RANGE: n/a

BOILING POINT OR RANGE: -21.6 to 75°F

## IV. FIRE AND EXPLOSION

FLASH POINT, F (give method): none (TOC, TCC, COC) 425° F. after 90% of product evaporates.

AUTOIGNITION TEMPERATURE, F: n/a

FLAMMABLE LIMITS IN AIR, VOLUME %: LOWER 6% @ 25°C UPPER 16.7% @ 25°C

FIRE EXTINGUISHING MATERIALS:

| | | |
|---|---|---|
| ____ water spray | X carobn dioxide | ____ other: |
| X foam | X dry chemical | |

SPECIAL FIREFIGHTING PROCEDURES: Use positive pressure, self-contained respiratory equipment.

UNUSUAL FIRE AND EXPLOSION HAZARDS: aerosol containers will explode at 160°F

## V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: Minimal anesthetic or narcotic effects may be seen in the range of 500-1000 ppm trichloroethane. Progressively higher levels over 1000 ppm may cause dizziness, drunkenness: concentrations as low as 10,000 ppm can cause unconsciousness and death. In confined or poorly ventilated areas, vapors which readily accumulate can cause unconsciousness and death. These high levels may also cause cardiac arrhythmias(irregular heartbeats).

Contact with skin or eyes: May cause pain. May cause slight transient(temporary) irritation with slight transient corneal injury. Vapors may irritate eyes. Prolonged or repeated exposure may cause skin irritation. Repeated contact may cause drying or flaking of skin.

Absorbed through skin: A single prolonged skin exposure is not likely to result in absorbtion of harmful amounts. The LD50 for rabbits is about 15,000 mg/kg.

Swallowed: Single dose oral toxicity is low. The LD50 for rats is- 10,000 mg/kg. If aspirated(liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems. Can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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HEALTH EFFECTS OR RISKS FROM EXPOSURE Systemic & Other Effects: Based on available data, repeated exposures are not anticipated to cause any significant adverse effects. 1,1,1-Trichloroethane and similar mixtures did not cause cancer in long-term animal studies. Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. In animal studies, has been shown not to interfere with reproduction. Results of in vitro(test tube) mutagenicity tests on 1,1,1-trichloroethane have been negative. Results of mutagenicity tests in animals have been negative.

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FIRST AID: EMERGENCY PROCEDURES:

Eye contact: Irrigate immediately with water for at least 5 minutes

Skin contact: Wash off in flowing water or shower. Wash contaminated clothing before reuse.

Inhaled: Remove to fresh air. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

Swallowed: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

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SUSPECTED CANCER AGENT?

__X__ NO: This product's ingredients are not found in the lists below.

____ YES: ____ Federal OHSA ____ NTP ____ IARC ____ Cal/OSHA*

*Note: California employers using Cal/OSHA-regulated carcinogens must register with Cal/OSHA.

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NOTE TO PHYSICIAN: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

========== VI. REACTIVITY DATA ==========

STABILITY: __X__ Stable ____ Unstable

CONDITIONS TO AVOID: Open flames,welding arcs, or other high temperature sources which induce thermal decomposition.

INCOMPATIBILITY (materials to avoid):water-long term contact can deplete stabilizers followed by slow hydrolysis producing corrosive acid. Avoid prolonged contact with, or storage in aluminum and its alloys. Metallic aluminum and zinc powders should be avoided.

HAZARDOUS DECOMPOSITION PRODUCTS(including combustion products):
Hydrogen chloride and very small amounts of phosgene and chlorine, hydrochloric and hydrofluoric acids - possible carbonyl halides. CO, CO2

HAZARDOUS POLYMERIZATION: ____ May occur __X__ will not occur

CONDITIONS TO AVOID: open flames, glowing metal surfaces, and confined areas.

========== VII. SPILL, LEAK AND DISPOSAL PROCEDURES ==========

SPILL RESPONSE PROCEDURES (include employee protection measures): Persons not wearing protective equipment should be excluded fromarea of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading,pump liquid to salvag tank. Remaining luquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

PREPARING WASTES FOR DISPOSAL (container types, neutralization, etc.):
Contaminated absorbent may be deposited in a landfill in accordance with local, state and Federal regulations.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

## VIII. SPECIAL HANDLING INFORMATION

VENTILATION AND ENGINEERING CONTROLS: Control airborne concentrations below the exposu guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary f some operations. Lethal concentrations may exist in areas with poor ventilation.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive pressure self-contained breathing apparatu

EYE PROTECTION (type): Use safety glasses, or chemical goggles where contact with liquid is likely.

GLOVES (specify material): Wear resistant gloves such as:polyvinyl alcohol, polyethylene

OTHER CLOTHING AND EQUIPMENT: To prevent repeated or prolonged skin contact wear impervious clothing and boots.

WORK PRACTICES, HYGENIC PRACTICES: Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid) all hazard precautions given in data sheet must be observed.

OTHER HANDLING AND STORAGE REQUIREMENTS: Handle with reasonable care, contents under pressure, do not puncture or incinerate. Store below 100°F and out of sun's rays. Concentrated vapors are heavier than air and will collect in low areas and other confined areas. Do not enter these areas unless wearing special breathing apparatus.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

This material is used to clean equipment, will evaporate completely leaving no residue. Use with adequate ventilation so that air concentrations do no exceed 350ppm . Minor traces of Molybdenum Disulfide and Polyglycol will remain.

## IX. LABELING

LABELING (precautionary statements)* Use with adequate ventilation. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with the skin. Do not take internally. Keep out of reach of children. Caution- Contents under pressure. Do not puncture or incinerate. Keep away from open flame. Store below 120°F. and out of sun's rays.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

*Not required. Space has been provided on this form for optional use.